WATER . . .

when and where your garden needs it

You picked some choice produce from your Victory Garden—tasted good, didn't it? You'll be looking forward to more, fresh from the garden and stored on cellar shelves for winter use.

Don't forget that summer sun. If you rely on rain alone, even a wet season can't entirely prevent wilted leaves and lower yields. Better not let rain carry all the burden—remember your garden needs about an inch of water a week over its entire surface, to produce the results you've been expecting. Many experiments have shown that a well-watered garden produces from two to ten times as much as one depending on rain alone.

You can help assure an adequate supply of water with a carefully planned garden watering system. It's not too late to get started—put it into operation now, before Old Sol gets too hot!

RURAL ELECTRIFICATION ADMINISTRATION, U. S. DEPARTMENT OF AGRICULTURE

Overhead Sprinkling or Surface Watering

There are two general types of garden irrigation in general use: overhead sprinkling, and surface watering. Local conditions and equipment available are the main deciding factors in choosing the method to be used.

Sprinkler Systems

Where you have water under pressure, as from an electric pressure pump, any of a number of sprinkler systems may be used. One type is the overhead pipe with small holes drilled along one side, and so mounted that it may be turned to sprinkle in either direction. Such a system may be attached permanently to a supply pipe, or may be portable with the water supplied through a hose. Another common sprinkler is the rotating nozzle attached to a hose. This must, of course, be moved as often as each section of garden has received sufficient water.

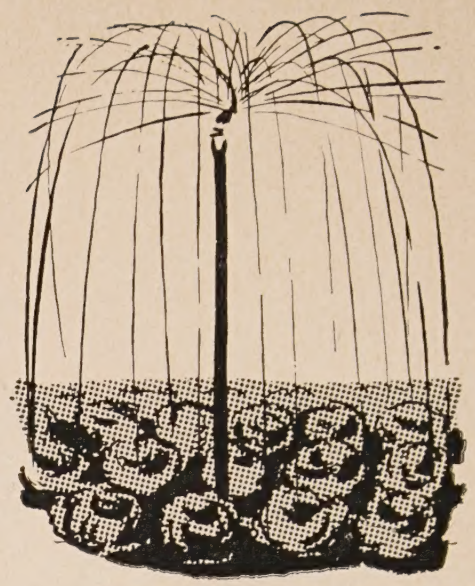
Surface Watering

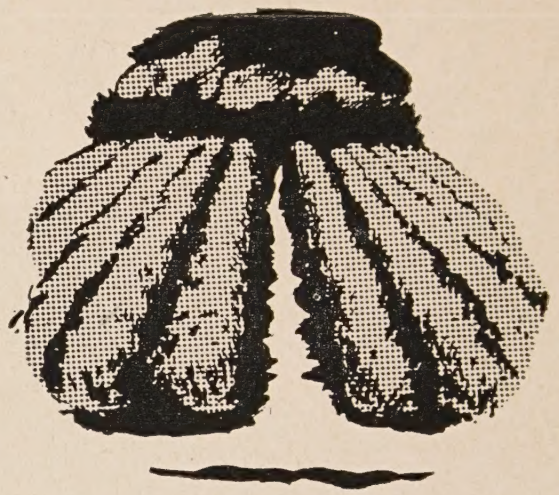
Surface irrigation may be carried out with furrows or small ditches between the rows. For this type of watering the garden must be fairly level, or the garden rows planted on the contour of a slope. Simply run, or pour water into a ditch at the higher end of a row, leading the water where it is wanted with a shovel or hoe. Adjust the flow of water, or the length of the section being irrigated so the water just reaches the far end of the row before it disappears into the ground. If the rows are two feet apart, 25 gallons of water will provide an inch for the 40 square feet in 20 feet of row.

The simplest form of irrigation is probably a barrel on a cart or sled. Place the barrel at the upper end of the rows, and open the spigot or pull the plug and allow water to run between the rows.

Make Your Own Hose

On irregular surfaces a porous canvas hose may be used. Such a hose may be purchased, or made by sewing the edges of an eight to 12-inch strip of canvas, attaching a hose coupling to one end and sewing the other end, forming a porous bag. The hose is laid between rows and water seeps out through the canvas. Use light canvas (8 or 10 oz.) for low pressure water systems, and heavier material where higher pressure is used.





How Much Water?

Important points in irrigation are the rate of applying water and the total amount of water used. Water should not be applied faster than it disappears into the soil, whether sprinkling or surface irrigation is used. Water applied faster than it soaks in wastes both water and valuable plant food. About 27,000 gallons of water provides one inch for an acre, or 2,700 gallons for the average 4,000 square foot garden.

Gardeners who use their own pumping systems will need to compute the capacity of their pumps and consider their water supply. Obviously a farmer cannot use more water for garden irrigation than he can spare after the needs of his livestock and household are supplied.

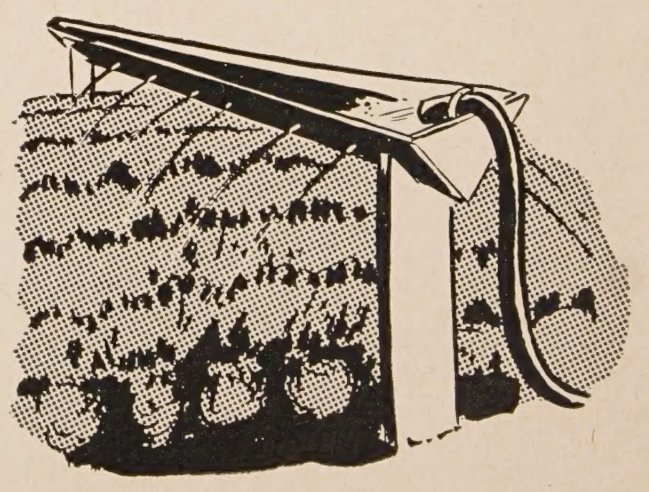
If a pipeline or hose is not available to bring water to the garden, a satisfactory system may be improvised from materials at hand. A series of wooden troughs, made by nailing narrow boards together in a V-shape make excellent downhill conveyors. In clay, or other heavy soil, water may be conveyed short distances in earth ditches, provided, of course, the water supply is or may be pumped to a higher level than the garden with a gradual slope to the outlet.

One heavy application of water is better than a number of lighter ones. It is better to irrigate thoroughly a small part of the garden, leaving the rest for the following day, than merely to wet the surface of a larger area.

The one inch a week rule is not a hard and fast standard. Soil types, crops, climate and weather conditions affect the amount of moisture needed to permit maximum plant growth. Whether you depend on rainfall or irrigation, water should wet the soil to a depth just below the plant roots.

As soon after a rain, or irrigation, as the soil can be worked without mudding, the surface should be cultivated into a fine mulch. This "dust mulch" prevents excessive evaporation and conserves moisture in the soil.

Aid in preparation of this article was obtained from W. J. Ridout, Jr., rural electrification specialist at Clemson College, South Carolina. Source material also came from publications of other agricultural colleges.



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